

07-SC-12, Project Engineering and Design (PED), Advanced Light Source User Support Building, Lawrence Berkeley National Laboratory

1. Significant Changes

This is the initial project engineering and design datasheet for this project.

2. Design, Construction, and D&D Schedule

(fiscal quarter)						
	Preliminary Design start	Final Design Complete	Physical Construction Start	Physical Construction Complete	D&D Offsetting Facilities Start	D&D Offsetting Facilities Complete
FY 2007.....	1Q FY 2007	2Q FY 2008	N/A	N/A	N/A	N/A

3. Baseline and Validation Status^a

(dollars in thousands)						
	TEC	OPC, except D&D Costs	Offsetting D&D Costs	Total Project Costs	Validated Performance Baseline	Preliminary Estimate
FY 2007	3,000	400	N/A	3,400	N/A	3,400

4. Project Description, Justification, and Scope

At Lawrence Berkeley National Laboratory (LBNL), there is a critical shortage of high quality user support space. Users are presently accommodated in Building 10 and adjacent spaces that are ill-suited for their current use, and in the case of Building 10, structurally deficient. This shortage of suitable space for users creates significant impediments to the attainment of mission objectives. The User Support Building will support the major BES user facilities at LBNL, primarily the Advanced Light Source (ALS), the Office of Science's only third generation UV and soft x-ray synchrotron radiation source. The new building will also allow construction of an ultra-high resolution ALS beamline in an energy range suitable for use by multiple physical science and life science users. The unique science being performed at the ALS, cannot be supported by facilities at any other location. In particular, assembly of experimental equipment for use at the ALS needs to be performed in high-quality space located adjacent to the facility. The project is consistent with LBNL's Strategic Facilities Plan.

This project will provide a new facility of approximately 30,000 gross square foot (gsf) that includes a high bay for assembly of experimental equipment, precision component assembly areas, wet laboratories, and office space. It will be designed to support over 2,000 scientific facility users annually that are expected due to the growth of user programs at LBNL. The User Support Building project scope will also include road improvements to provide better access to the new User Support Building facility. Sustainable building principles will be incorporated into the design and construction.

The Project Engineering and Design (PED) funds requested in FY 2007 for the User Support Building will allow the project to proceed from conceptual design into preliminary and detailed design. These funds will be used to further define the scope, provide detailed estimates of construction costs based on

^a The estimates in section 3 are for PED only. The full project TEC (design and construction) is estimated to be in the range of \$30,000,000 to \$35,000,000. This estimate is preliminary and should not be construed to be a validated project baseline.

the approved design, develop working drawings and specifications, and provide schedules for construction and procurements. The design effort will ensure that construction can start in FY 2008.

The project will be conducted in accordance with the project management requirements in DOE Order 413.3 and DOE Manual 413.3-1, Program and Project Management for the Acquisition of Capital Assets. The project costs represented in this datasheet are preliminary estimates for project engineering and design only. The preliminary schedule for project Critical Decisions is as follows:

Compliance with Project Management Order

- Critical Decision-0: Approve Mission Need—3Q FY 2003
- Critical Decision-1: Approve Preliminary Baseline Range—3Q FY 2006
- External Independent Review Final Report—1Q FY 2007
- Critical Decision-2: Approve Performance Baseline—1Q FY 2007
- Critical Decision-3: Approve Start of Construction—4Q FY 2007
- Critical Decision-4: Approve Start of Operations—FY 2010

5. Financial Schedule (dollars in thousands)

	Appropriations	Obligations	Costs
Design by Fiscal Year			
2007	3,000	3,000	2,700
2008	—	—	300
Total, Design PED	3,000	3,000	3,000

6. Details of Project Cost Estimate

Total Estimated Costs

	(dollars in thousands)	
	Current Estimate	Previous Estimate
Preliminary and Final Design	3,000	N/A

Other Project Costs

	(dollars in thousands)	
	Current Estimate	Previous Estimate
Conceptual Planning	400	N/A

7. Schedule of Project Costs

(dollars in thousands)

	Prior Years	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Outyears	Total
TEC(Design).....	—	2,700	300	—	—	—	—	3,000
OPC (Design).....	400	—	—	—	—	—	—	400
Total, Project Costs (Design)	400	2,700	300	—	—	—	—	3,400

8. Related Operations and Maintenance Funding Requirements

Not applicable for project engineering and design.

(Related Funding Requirements)

Not applicable for project engineering and design.

9. Required D&D Information

Not applicable for project engineering and design.

10. Acquisition Approach

A formal acquisition strategy will be prepared prior to CD-1 (estimated for 3Q FY 2006).

